

Worksheet Reflection and Refraction

1. A light ray originates in a liquid having an index of refraction of 2.2 and enters a second liquid having an index of refraction of 3.5.
  - a. If the incident angle is  $35^\circ$ , what is the angle of refraction?
  
  
  
  
  
  
  
  
  
  
  - b. Answer the same question if the light ray had originated in the second medium. Use the same angle of incidence.
  
2. What is the speed of light passing through a medium having an index of refraction of 4.5?
  
  
  
  
  
  
  
  
  
  
3. What is the speed of light passing through a medium having an index of refraction of 2.25?
  
  
  
  
  
  
  
  
  
  
4. What is the index of refraction of a medium if light travels through the medium at a speed of  $1.5 \times 10^8$  m/s?
  
  
  
  
  
  
  
  
  
  
5. What is the index of refraction of a medium if the light travels through the medium at a speed of  $2.65 \times 10^8$  m/s?